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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/455,574 12/06/99 KROESBERGEN

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IM62/0606

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EXAMINER

RUSSELL D ORKIN  
700 KOPPERS BUILDING  
436 SEVENTH AVENUE  
PITTSBURGH PA 15219-1818

JOHNSON, J

ART UNIT

PAPER NUMBER

1725

DATE MAILED:

06/06/01

*6*

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/455,574

Applicant(s)

KROESBERGEN, AALBERTUS  
PIETER

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12-6-99.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 35-64 is/are pending in the application.
- 4a) Of the above claim(s) 51-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-39, 41-50 and 61-64 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☒ Claims 35-64 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 08/875,237.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 35-50 and 61-64 are drawn to a super absorbent material, classified in class 428, subclass 304.4.
- II. Claims 51-60 are drawn to a method of manufacturing, classified in class 264, subclass various.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a method that does not involve adding a crosslinking agent.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Richard Byrne on 5-26-01 a provisional election was made with traverse to prosecute the invention of Group I, claims 35-50 and 61-64.

Affirmation of this election must be made by applicant in replying to this Office action. Claims

51-60 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 46, 48, 49 and 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 46, Line 2 the term “the composition” lacks proper antecedent basis. This rejection can be overcome by changing the dependency of this claim from “35” to “37”.

In claim 48, Lines 3 and 4, the term “cellulose-like polymer” is indefinite as to scope, because it is unclear what is encompassed and excluded by this term.

In claim 49, Line 3, the term “fibre” should be changed to “fiber” to conform to US spelling. Also, in claim 49, line 3, the term “petrojelly-like filling compound” because it is unclear what is encompassed and excluded by this term.

The claims 42-45 do not necessarily limit claim 41, because claims 42-45 do not limit the additive to the one(s) being further defined in claims 42-45. For example, for claim 42 to positively further limit claim 41 it should be rewritten as “The substrate as claim 41, wherein the additive is agents for changing the viscosity of the composition, and wherein the agents for changing the viscosity of the composition are acrylates, polyurethane, or combinations thereof.”

Regarding claim 62, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 35, 37, 41-45, 48, and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Masuda et al. (4,076,663). Masuda et al. teaches the preparation of highly water absorbent materials employing resins produced by polymerizing cellulose, at least one polymerizable monomer, a cross linking agent, and optionally in the presence of a radical polymerization catalyst (abstract and Column 5, Lines 1-6). The composition can be mixed with various additives (Column 5, Lines 50-56). The water absorbing resins may be applied to various substrates such as cloth or paper by any known method (Column 6, Lines 3 et seq). Such methods include immersing the substrate in an aqueous solution of the mixture and subsequently drying the substrate. Additionally, the polymerization may result after combining with the substrate and then dried for use (Column 6, Lines 1-23). Masuda anticipated the claimed subject matter.

Claims 35, 38, 48, and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Burkholder, Jr. (4,154,898) or Gross (4,017,654). Burkholder and Gross disclose the production

of absorbent substrates by applying a composition of a hydrophilic polymer together with a cross-linking agent on a substrate and subsequently curing of the coating. The coating can be applied to various substrates to form a super-absorbent article, such as surgical sponges and fibrous sheets and webs. Burkholder and Gross anticipated the claimed subject matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36, 39, and 47 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103 (a) as obvious over Masuda. With regard to claims 36, 39, and 52, Masuda does not specifically disclose that the super absorbent material is in the form of a plurality of discrete, substantially semi-spherical islets with a diameter of between 10 and 1000 microns. However, Masuda uses the same components in the same amounts and appears to prepare the substrate by an identical super-absorbent material. Alternatively, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have optimized the shape and size of the super-absorbent material of Masuda, since it has been held that discovering the optimum or workable ranges involve only routine skill in the art. *In re Aller*, 105 USPQ 233. In the present case, it would have been obvious to the skilled artisan to have optimized the shape and size of the super absorbent material of Masuda motivated by the desire

to obtain a substrate having predetermined absorbency properties. With regard to Claim 47, it is the examiner's position that the substrate of Masuda is identical to or only slightly different than the claimed substrate prepared by the method of the claimed method, because both substrates are formed by a similar method and result in a highly absorbent article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Masuda either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the Masuda.

Claims 36, 37, 39, 41-45, and 47 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103 (a) as obvious over Burkholder, Jr. or Gross. With regard to Claims 36, and 39 Burkholder and Gross do not specifically disclose that the super absorbent material is in the form of a plurality of discrete, substantially semi-spherical islets with a diameter of between 10 and 1000 microns. However, Burkholder and Gross use the same

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components in the same amounts and appears to prepare the substrate by an identical method as the present invention; thus it is the examiner's position that Burkholder and Gross inherently have a identical super-absorbent material. Alternatively, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to have optimized the shape and size of the super-absorbent material of Burkholder and Gross, since it has been held that discovering the optimum or workable ranges involve only routine skill in the art. *In re Aller*, 105 USPQ 233. In the present case, it would have been obvious to the skilled artisan to have optimized the shape and size of the super-absorbent material of Burkholder and Gross motivated by the desire to obtain a substrate having predetermined absorbency properties. With regard to Claims 37, 41-45 and 47, it is the examiner's position that the substrate of Burkholder and Gross is identical to or only slightly different than the claimed substrate prepared by the method fo the claimed method, because both substrates are formed by a similar method and result in a highly absorbent article. Even though the product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Alternatively, it is well known in the art to use a catalyst material in order to control the rate of crosslinking and it would have been obvious to the skilled artisan to add a catalyst material to the composition of Burkholder and Gross either anticipated or strongly suggested the



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claimed subject matter. It is noted if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Burkholder and Gross.

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burkholder, Jr. or Gross. With regard to Claim 50, neither Burkholder or Gross disclose the specific composition ranges of the components. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have optimized or found workable concentration ranges for the composition of Burkholder and Gross since it has been held that discovering the optimum or workable ranges involves only routine skill in the art *In re Aller*, 105 USPQ 322.

Claims 46 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda, Burkholder, Jr. or Gross in view of Bottiglione et al. (5,246,770). Masuda, Burkholder, and Gross do not specifically disclose adding soot to the composition to make it conductive or forming a cable comprising the substrate material as the sheathing material. Bottiglione discloses that it is known in the art to apply conductive material to a super absorbent coated substrate material and use that material as a sheathing for a cable. It would have been obvious to the skilled artisan to have used the substrate of Masuda, Burkholder, or Gross as a cable sheathing as taught by Bottiglione, motivated by the desire to obtain an effective water barrier for a cable. Additionally it would have been obvious to the skilled artisan to have added a conductive material to the composition of Masuda, Burkholder, or Gross, as taught in Bottiglione, motivated by the desire to form an electrically conductive material.

Claims 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda, Burkholder, Jr. or Gross in view of Nishino et al. (5,275,884).

Nishino teaches an adsorbent product used in a baby diaper and packaging material (Column 5, Lines 61 through Column 6, Line 5). It would have been obvious to the skilled artisan to have used the substrate of Masuda, Burkholder, or gross as a agricultural substrate as taught by Nishino et al. motivated by the desire to effectively contain liquids.

Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda, Burkholder, Jr. or Gross in view of Miller (4,321,997).

Miller teaches an agricultural substrate comprising an absorbent (abstract). It would have been obvious to the skilled artisan to have used the substrate of Masuda, Burkholder, or gross as a agricultural substrate as taught by Miller, motivated by the desire to contain food juices.

***Allowable Subject Matter***

Claims 40 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The prior art of record does not suggest or teach adding foaming agent to the super absorbent composition prior to applying the composition to the substrate and causing the composition to be foamed at any time after the addition of the foaming agent.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 35-50 and 61-64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 5,998,312 in view of Dabi (4,613,543).

With respect to Claim 40, Patent No. 5998312 ('312) teaches a substrate comprising a super absorbent material applied to the substrate, wherein the super absorbent material is obtained by adding a cross linker and a foaming agent to a solution of a polymer to obtain a pasty composition and applying the composition to the substrate; wherein the composition is caused to foam at any time after the addition of the foaming agent to the polymer solution (Claim 1). Dabi teaches the use of a catalyst (Column 3, Lines 29-45). It would have been obvious to

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one of ordinary skill in the art at the time of the invention to modify the process of '312 to utilize the catalyst of Dabi in order to increase the speed of the reaction.


### *Conclusion*


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 703-308-0667.

The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-5885 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

jj   
June 4, 2001

  
**TOM DUNN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**